

**REMARKS**

Applicant respectfully requests the Examiner to reconsider the present application in view of the foregoing amendments to the claims.

Claims 2, 9, 11 and 13 were previously canceled without prejudice or disclaimer of the subject matter contained therein. In the present reply, claim 15 is canceled without prejudice or disclaimer of the subject matter contained therein. Also, claim 14 has been amended and claim 16 has been added. Thus, claims 1, 3-8, 10, 12, 14 and 16 are pending in the present application. Claims 1, 3-8, 10 and 12 are allowed.

No new matter has been added by way of the amendment and new claim. For example, the amendment to claim 14 merely incorporates the subject matter of canceled claim 15. New claim 16 is supported by the specification at page 8, lines 5-11. Thus, no new matter has been added.

Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicant respectfully requests that the Examiner withdraw the only rejection and allow the currently pending claims.

**Issues Under 35 U.S.C. § 103(a)**

Claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,979,200 to Umemoto et al. (hereinafter "Umemoto '200") and further in view of U.S. Patent No.

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4,574,102 to Arakawa et al. ("Arakawa '102"). Applicant respectfully traverses, and reconsideration and withdrawal thereof are respectfully requested.

Requirements for *Prima Facie* Case of Obviousness Not Satisfied

At page 3 of the Office Action, the Examiner states that pending claim 14 differs from Umemoto '200 in that Umemoto '200 does not exemplify that the thickness of the uppermost layer is decreased relative to the layer beneath the uppermost layer. The disclosure of the secondary reference of Arakawa '102 is used to account for the deficiencies of Umemoto '200. However, Applicant respectfully traverses this rejection since the references have been improperly combined. One of ordinary skill in the art would not be motivated or reasonably expect to be successful in combining the two references in order to achieve the present invention.

Applicant notes that any cited reference used for a rejection under 35 U.S.C. § 103(a) must be considered in its entirety, *i.e.*, as a whole. See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Further, an analysis under 35 U.S.C. § 103(a) requires a determination of the scope and content of the prior art. See *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). Here, one of ordinary skill in the art would understand that there are no distinct layers in the product disclosed in Arakawa '102. Based upon an entire reading, Fig. 1 of Arakawa '102 discloses a product that is made of one layer, wherein the binder/phosphor

ratio is higher at both the surface area and the bottom area. Arakawa '102 even has difficulty in controlling binder/phosphor ratio in their radiation image conversion panel. This disclosure and the disadvantages are in contrast to the present invention.

Instantly pending claim 14 recites that the claimed radiation image conversion panel is produced by thermo-compressing at least two sheets, wherein the sheets have been separately coated and dried. Thus, there are distinct layers in the radiation image conversion panel of the present invention, and the claimed radiation image conversion panel is patentably distinct from the panel of the cited Arakawa '102 reference. Accordingly, one of ordinary skill in the art would not be motivated or reasonably expect to be successful in combining Umemoto '200 with Arakawa '102 in order to achieve the present invention. Instead, the skilled artisan would understand that Arakawa '102 teaches a product that is made of one layer, wherein the binder/phosphor ratio is higher at both the surface area and the bottom area in the single layer. Applicant further submits that the skilled artisan would not even refer to Arakawa '102 in the first place in hopes of achieving the present invention, since Arakawa '102 has a different embodiment in using just one layer (versus the present invention).

Thus, Applicant respectfully submits that a *prima facie* case of obviousness has not been established. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in

the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teachings or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in patent applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Here, the requisite motivation and/or reasonable expectation of success are lacking. One of ordinary skill in the art, upon a reading of the entire Arakawa '102 reference, would understand that this reference discloses a one-layered product and is incompatible with the panel of Umemoto '200. Thus, there cannot be a combination of the two references as asserted in the Office Action. Accordingly, withdrawal of this rejection is respectfully requested.

Inoperability of Cited Reference(s)

As mentioned, the skilled artisan would understand that Arakawa '102 teaches a product that is made of one layer, wherein the binder/phosphor ratio is higher at both the surface area and the bottom area. Thus, Applicant respectfully submits that one of ordinary skill in the art would not combine the two cited references, since such a proposal would render the Arakawa '102 reference inoperable (or at least destroy its intended function).

U.S. case law holds that if a proposal for modifying the cited reference in an effort to attain the claimed invention causes the reference to become inoperable or destroys its intended function, then the requisite motivation to make the modification would not have existed. See *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984) (Federal Circuit stating that modifying the French apparatus as the Board suggested would render the apparatus inoperable for its intended purpose); *In re Fritch*, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992); see also *In re Ratti*, 123 USPQ 349, 352 (CCPA 1959). That is the case here, because the present invention would destroy the intended purpose of, or render inoperable, at least the Arakawa '102 reference. Arakawa '109 would have to be more than its required one layer. Thus, Applicant respectfully submits that the instant rejection is improper and requests withdrawal of this rejection.

#### Unexpected Results Rebutting the Rejection

Applicant respectfully submits that the present invention has achieved unexpected results, whereby such results rebut any asserted *prima facie* case of obviousness (whether based on Umemoto '200, Arakawa '102 or any other reference or combinations thereof).

As mentioned, instantly pending claim 14 is directed to a radiation image conversion panel that is produced by thermo-compressing at least two sheets that have been separately coated and dried. This leads to unexpected results of the present invention.

Specifically, with the present invention, a binder/phosphor ratio in each layer can be independently controlled. The present invention has achieved the improved immobilization of the binder between the layers and allowing the binder/phosphor ratio to be easily controlled. In this regard, even though the Office Action states that a product-by-process limitation should not be given patentable weight (at page 4 of the Office Action), Applicant respectfully traverses this conclusion. Applicant's traversal is based on how the present invention has unexpectedly achieved better control of the binder/phosphor ratio and improved immobilization of the binder between the distinct layers (as mentioned above).

Also, a further unexpected advantage of the present invention is that a phosphor layer having a great filling factor can be produced (see page 21, line 17 of the specification). As a result, the claimed radiation image conversion panel achieves greater density of stimuable phosphor in the phosphor layer as compared to conventional radiation image conversion panels. Such advantages are unexpected and not within the disclosure of the cited combination of references.

Thus, Applicant respectfully submits that the present invention (claim 14) has achieved unexpected results, which rebuts any rejection based on 35 U.S.C. § 103(a). Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

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**Allowable Subject Matter**

The Examiner has indicated that claims 1, 3-8, 10 and 12 are allowed. However, Applicant respectfully submits that the other pending claims are in condition for allowance as well. For instance, pending claim 16 is directed to the novel feature of a gradual decrease in the amount of binder. Thus, Applicant respectfully requests a declaration of allowable subject matter for all instantly pending claims.

**Correction of Inventor's Name**

An Application Data sheet is attached hereto to correct the spelling of the inventor's last name. Specifically, the USPTO is requested to correct the spelling as follows: ~~OGAWA~~ OGAWA.

**Conclusion**

Applicant has taken substantial steps to advance prosecution of the present application. Thus, Applicant respectfully requests that a timely Notice of Allowance issue for the present case.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez (Reg. No. 48,501) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. § 1.17 and 1.136(a), Applicant respectfully petition for a one (1) month extension of time for filing a response in

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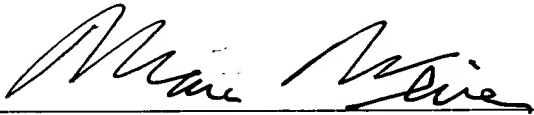
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connection with the present application. The required fee of \$120.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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## APPLICATION DATA SHEET

### APPLICATION INFORMATION

Application Type:: Regular  
Subject Matter:: Utility  
CD-ROM or CD-R?: None  
Number of CD disks:: 0  
Number of copies of CDs:: 0  
Sequence submission?: None  
Computer Readable Form (CRF)?:  
Number of copies of CRF::  
Title:: RADIATION IMAGE CONVERSION PANEL  
Attorney Docket Number:: 1982-0149P  
Request for Early Publication?: No  
Request for Non-Publication?: No  
Suggested Drawing Figure::  
Total Drawing Sheets:: 0  
Small Entity?: No  
Petition Included?: No  
Petition Type::

### APPLICANT INFORMATION

Applicant Authority Type:: Inventor  
Primary Citizenship:: JAPANESE  
Country:: JAPAN  
Status:: Full Capacity  
Given Name:: Hiroshi  
Middle Name::  
Family Name:: **OGAWA OGAWA**

Application No. 09/560,819  
Art Unit 2879

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State or Province of Residence::  
Country of Residence:: Japan  
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Country of mailing address:: Japan  
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Country::  
Status:: Full Capacity  
Given Name::  
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Given Name::

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City of Residence::

State or Province of Residence::

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Street of mailing address::

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State or Province of mailing address::

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#### **CORRESPONDENCE INFORMATION**

Correspondence Customer Number:: 02292

#### **REPRESENTATIVE INFORMATION**

Representative Customer Number::	02292
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#### **DOMESTIC PRIORITY INFORMATION**

Application::	Continuity Type::	Parent Application::	Parent Filing Date::
This application			

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#### FOREIGN PRIORITY INFORMATION

Country::	Application Number::	Filing Date::	Priority Claimed::
JAPAN	11-121930	04/28/99	Yes

#### ASSIGNEE INFORMATION

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